THE PRESENT TREND OF REAL WAGES

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About two years ago the writer published a brief article under the title "The Recent Trend of Real Wages" in the *American Economic Review* for December, 1914. The article and its conclusions at that time happened to attract a good deal of attention among American economists and statisticians, and yet there was very little that was striking or unexpected either in the conclusions or in the statistical methods employed. Even an undergraduate student of economics is familiar with "the index number of the purchasing power as measured by retail price of food," published by the United States Bureau of Labor Statistics for years 1890 to 1907.

For various reasons the publication of that index number of what might be termed "real wages" was discontinued by the federal Bureau of Labor Statistics, and all that the writer had endeavored to accomplish was to bring that index up to date by combining the available data on prices and wages published by the same government bureau.

Naturally the statistical machinery available to an independent student is very much more limited. Any careful weighting of the data had to be abandoned, and perhaps the only contribution for which some credit may be claimed was in establishing the thesis that the influence of the various methods of weighting was so slight that a simple averaging could be expected to produce at least approximately accurate results. Assuming the average real wage between 1890 and 1899 to be 100, the purchasing power of weekly wages measured by retail prices of food during the years 1900 and 1912 was found to be as follows:

1900	100.2	1907	97.7
1901	96.8	1908	93.0
1902	94.3	1909	89.4
1903	97.3	1910	87.2
1904	96.0	1911	88.9
1905	98.6	1912	85.3
1906	98.0		

On a basis of these figures the writer ventured the statistical deduction that between 1907 and 1912 the purchasing power of weekly wages, or the real weekly wages, has decreased from 97.7 to 85.3, 12.4 points or 12.7 per cent. The study concluded as follows:

> With fewer children to support, with women young and old, married or unmarried, contributing to the family budget, or at least partially relieving it of a certain share of the burden, the wage workers of America were able to raise the standard of living to lead a somewhat easier life. But this does not mean a larger return for their labor. As far as the purchasing value of the wages is concerned it has probably increased slightly (though by no means as rapidly as is asserted) between 1870 and 1890, but since 1900 it has been rapidly falling. The purchasing power of wages in 1913 is not much higher than it was in 1870.
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> And yet the increase in the productivity of labor during the last three decades, especially as measured in consumers' values, was enormous. It is not at all necessary to quote figures to prove this contention. The conclusion is inevitable that a much smaller share of the value reaches the wage worker now than did twenty or thirty years ago.

These conclusions were on the whole accepted without much controversy by American statisticians. Professor John H. Gray in his presidential address before the twenty-seventh annual meeting of the American Economic Association quoted that article in support of the following statement: "At the same time that this influx of women and children into the industries is taking place, real, as distinct from money wages, have constantly declined since 1906." Professor Walter E. Clark in his book *The Cost of Living*, Professor E. D. Durand in his presidential address before the American Statistical Association in December, 1915, Dr. B. S. Warren of the Public Health Service in his valuable study of *Health Insurance*, Professor D. H. L. Weld in his book on *Marketing of Farm Products*, Mr. William English Walling in the *Inter-collegiate Socialist* for December, 1915, *The New Review* for October, 1915, Professor W. J. Lauck in the *Locomotive Engineers' Monthly Journal*, Professors Irving Fisher, Walter Wilcox and Robert E. Chaddock in personal correspondence have all expressed their agreement with the conclusions reached, which as a matter of fact, represented no more than a statistical demonstration of the quite obvious trend of price and wage movements. It was therefore quite unexpected, and I believe on the whole, unfortunate that in a public hearing before the committee on labor of the United States House of Representatives in Washington in a discussion of social insurance this obvious

statistical deduction was made the subject of a very emphatic attack by the venerable President of the American Federation of Labor in language of which the following is fairly typical:

> The statement to which I took exception, and which I now emphasize, was a subtle blow at the life and vitals of the trade union movement and trade union activity. If, as Dr. Rubinow's charge implies, trade union work has brought about this one condition, that wages have not kept pace with the cost of living; if despite trade union activity in the past twelve years, there is 15 per cent less of purchasing power of the necessities of life, then the whole work of the trade union movement is wrong and must of necessity be a failure. So far as I am concerned I will say this, that if I believed that to be a fact I would not give my time and my life to trade union work and I would not advise any man or woman to join a trade union. If the conditions of the workers are worse than they were twelve years ago, as I say, our cause has been a failure.[1]

Is it necessary to state here that there is absolutely no justification for such interpretation of the statistical statement? It is obvious that the trade union movement, no matter how useful, cannot always claim omnipotence and the only deduction to be made from those statistical data is that the pressure of higher cost of living was so terrific that even trade union activity was unable to overcome its effect.

An effort at an accurate determination of the movement of real wages since 1912 to 1916 continues to present, especially to the private statistician, such serious difficulties that the work is not undertaken with a great deal of confidence. While the Bureau of Labor Statistics published a large amount of data on wages and prices, the methods of statistical presentation have been changed so radically that an effort to continue the old index of real wages meets various difficulties.

There is no intention to criticise here the change of these methods because they have been undertaken under such high expert advice as only Professor Wesley Mitchell of Columbia University was able to give, and therefore the change in these methods must at present be accepted. But the annual change of base and a good many other minor differences make comparisons more difficult and the results only approximately correct.

[1] Hearings before the committee on labor, United States House of Representatives, 64th Congress, First Session, on H. J. resolution 159, Commission to study social insurance and unemployment, April 6, 1916, page 151.

Moreover, there may be less need for private reconstructing indexes. In one of its recent bulletins[2] the United States Bureau of Labor Statistics has again for the first time in many years presented the index number of purchasing power of wages for recent years. Two tables appear in that bulletin, conforming in general to the old method of computing the index number of purchasing power of wages with the following three differences:

1. The comparison is limited to union wages only.
2. The purchasing power for 1907 is taken as a basis of 100 instead of the average purchasing power during 1890 to 1899, and
3. Decimal points have been omitted to avoid the appearance of greater accuracy than could be claimed for the figures.

These tables give the index of the rate of wages per hour, at full time hours per week, rate of wages per week, full time, retail prices of food and purchasing power measured by retail prices of food, of rates of wages per hour, and of rates of wages per week, full time. It is now officially shown that while the rate of wages per hour from 1907 to 1915 for union labor has increased from 100 to 114, the full time hours per week have decreased from 100 to 97, thus reducing the increase of rate of wages for a full time week from 100 to 112. In the meantime the retail prices of food have increased from 100 to 124. Thus the purchasing power of rates of wages per hour has decreased from 100 to 92, and the purchasing power of rates of wages per week has decreased from 100 to 90. This last index may be shown in detail:

PURCHASING POWER OF RATES OF WAGES PER WEEK, MEASURED BY RETAIL PRICES OF FOOD

1907	100	1911	94
1908	98	1912	90
1909	94	1913	90
1910	92	1914	89
		1915	90

This table evidently corroborates the conclusions of my earlier article.

The data above refer to organized labor only. From other publications of the same bureau some information may be obtained concerning movement of wages in various other industries. Bulletins No. 177, 178, 187 and 190 have been utilized to bring together

[2] No. 194, Page 21.

indexes of weekly earnings in the following industries: hosiery and underwear, boots and shoes, men's clothing, cotton goods manufacturing, cotton goods finishing, woollen goods manufacturing, silk goods manufacturing.

The movement of wages during the last five years is shown in the following table:

	Knit Goods	Boots and Shoes	Men's Clothing	Cotton Manufacturing	Cotton Finishing	Woolen Manufacturing	Silk	Simple Average
1910	89	92		90		92	93	91.2
1911	89	94	91	90	97	92	94	91.9
1912	93	93	93	98	99	102	97	95.1
1913	98	100	101	99	98	100	102	99.7
1914	100	100	100	100	100	100	100	100.0

I prefer at this time not to make any effort to reconstruct all the data so as to fit them in with the old index number of real wages from 1890 to 1907. This would require a great many statistical recomputations which would obscure the data as found in the official publications. A simple average of those seven industries was, however, computed and it indicated that on an assumption of 100 as the average wage in 1914, the average wage of 1910 is only 91.2, showing an increase of 8.6 per cent during the four years. During the same period union wages have increased from 104 to 111, or about 7 per cent, while the retail prices of food have increased from 113 to 125, or over 10 per cent.

No great degree of statistical accuracy should be claimed for the comparison of those three data. But it seems quite obvious from the examination of those figures, and also from the more careful examination of the great wealth of retail quotations of wages in the numerous bulletins, that there has been a further slight decline in real wages even in the last three or four years. It is possible that on the whole wages may have held their own between 1912 and 1916, as measured in purchasing power of food. What the phenomenal increase of prices during 1916 has resulted in, it is yet too early to ascertain. Both price and wage movements since the beginning of the war must be admitted as abnormal, and perhaps no general deductions of economic tendencies could be lightly drawn therefrom. But the loss of the previous decade is now

universally admitted and it is doubtful whether even the abnormally high wages of a few industries supported by war demands and even the discontinuance of competition from the flood of emigrants have enabled the wider circles of the American working class to recover any of the loss sustained during the preceding decade.